RECENT trends in education have sought to emphasize the holism and interactive nature of the educational/living process. However, curriculum theory and management have suffered in this endeavor because most of our thought and conceptual work is of straight-line, boxed-in, uni-dimensional design. A recent book, The Open Access Curriculum, by L. Craig Wilson, began to come to grips with the interactive nature of the areas of curriculum, namely, the organized disciplines of knowledge, the human processes, and the unique attitudes and values an individual acquires toward and about himself, his reference groups, and his society.

The interrelationships of these areas have also been put forth in a collection of the writings of Virgil Herrick called Strategies of Curriculum Development by Andersen, Macdonald, and May. While other writers have vividly written of the areas curriculum should seek to develop and how they interrelate, few models available now give us a potential for management of and through interaction.

That is, areas must be described and then compete with other areas for time-dollar support, for example, humanism vs. the disciplines, academic knowledge vs. practical or applied knowledge, and process vs. content. The conflicts, however, need not occur if the curriculum design scheme is whole in its theory. The following is such a design and seeks to formulate curriculum into discrete but interactive spheres.

Areas of Instruction

Curriculum is seen as concerned with three distinct areas of instruction. The first is man's formalized perceptions of realities which have become known as the academic disciplines. The second includes the human processes, those attributes and abilities which set our species apart from the other members of this planet. The third and final aspect of curriculum has to do with the attitudes and values expounded, accepted, and denied by the cultures of society. (See Figure 1.)
These areas are generally found in most curricula, but they are unnecessarily separated, and they vie for attention and emphasis; whereas, whenever we function in one of the areas, we also attend to the others. It is the contention of this article that the awareness of the factors and their relationships will allow for a more effective curriculum which is cognizant of all aspects of modern human education.

It should also be recognized that this model does not tell or suggest what specific outcomes should be placed in any of the categories. Each teacher and each school can assign them either consciously or unconsciously. The model provides a framework for viewing what one does and suggests areas for richer, fuller development and investigation. The following is an introductory discussion of the areas suggested by the model.

**Perceptions of Reality**

The traditional subject matter of curriculum has consisted of study in the natural sciences (biology, physics, chemistry, and their related disciplines); mathematics-arithmetic; grammar; history, geography, and the other social sciences; and finally, the aesthetics of music, art, physical education, drama, and the industrial arts. These areas represent man's attempt to catalog, systematize, and record his perceptions and knowledge of reality. Although there is a great deal of commonality where specific phenomena have been defined and agreed upon, and while we can agree on most principles in each of the areas cited, there are differences and no two individuals perceive everything exactly alike.

These perceptions of reality can be classified into three broad areas: (a) physical reality or the natural sciences; (b) expressions of reality or the aesthetics; and (c) social reality or the social sciences. As we examine these diverse perceptions of reality, we are continually made aware of both their unique and generic principles. Any model of curriculum must seek to include both these realms of specific and general beliefs within the learning sequence.

The general reality perceptions of the physical sciences are often seen as giving us the "scientific method," the "discovery method," and/or the "inquiry method." Actually, these methods have flexibility across all of the perceptions of reality. The area we attend to least in our curriculum is that of expressive perceptions of reality. It is in this grouping that we must begin to give our students increased opportunity to develop and express their perceptions. By developing these expressions, students may also become aware of the legitimacy of catalog knowledge as well as the changeability of that knowledge. One's expressions of personal reality will change as his experiences increase his perceptions. Such change will not be lost on his perceptions of social and/or physical reality.

**Human Processes**

Much current educational thought is being devoted to humanizing the curriculum. The proponents of such ideas often seek to develop more understanding teachers, administrators, students, and others. While humanistic education can be left to either sensitizing the individual member or making "content relevant," we probably need to develop an area of curriculum which focuses on those aspects which are basic to some animal we call human. The three foremost
areas which seem to pertain to this topic are (a) communication, a broader field than language arts; (b) affective/cognitive development, integrative rather than separated; and (c) socialization, more than working well with others.

It is as we begin to explore this side that curriculum's interactive nature becomes more apparent and the usefulness of a management system becomes real. It is impossible to teach perceptions of reality, content as it were, without becoming involved in communication, cognition, or socialization. However, in our planning we tend to focus upon processes or content and then assume the rest will occur. We need, no doubt, to begin to plan assiduously for both kinds of experiences.

It would be wise to sketch these areas of Human Processes. Communication is seen as including much of what we now classify as language arts, but an even heavier emphasis upon the speaker's intent as well as the listener's reception. There is also an increased emphasis on nonverbal communication as well as an increase in the ability to use various media to communicate. (See Louise Berman's *New Priorities in the Curriculum*, Chapter 4.) While we talk about man's higher processes in thinking and feeling, we currently do little to foster such growth; and it may be that, at best, schools can do little in this area. We do need, however, to see that we plan/manage it into the curriculum in some fashion, as it is a part of man's human abilities.

The third segment is that of socialization. How do we become members of, and function in, an increasingly pluralistic society? Whether schools want this as their responsibility or not, they have it. It is merely an interactive extension to plan this into the curriculum with the other areas.

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Human Attitudes and Values

Schools account for some of the attitudes and values a student possesses, and it becomes apparent that this is a crucial responsibility of the schools because of the continuous, long-term impact of the school and the curriculum. As schools engage in curriculum development and implementation with respect to the attitudes and values of its students and teachers, they cannot overlook the three segments of (a) personal attitudes and values, (b) group/subculture attitudes and values, and (c) the overarching set of societal/national attitudes and values. The screaming tension, strife, and unrest in our country attest to our relative deficiency in planning for this area.

As one develops a curriculum concerned with attitudes and values, it is all too easy to emphasize either the personal or the national values. In the future, people will need a greater range and more flexibility of situational perceptions, particularly in dealing with special interest subgroups. This fact alone necessitates our consciously planning such experiences and encounters into the curriculum.

One does not engage reality or become human in processes without confronting and shaping his belief attitudes and values. By determining those values/attitudes needed in a pluralistic democracy and providing students with encounters and experiences, our curriculum does begin to become more alive and more like life.

Design in Management

As can be seen, the design provides for management within one set, such as Human Processes; between two sets, such as Human Processes and Perceptions of Reality; and, finally, among all three sets of Attitudes and Values, Perceptions of Reality, and the Human Processes. The design/management potential might best be explored by using Venn diagrams to show the interrelationships which are necessary as we become more sophisticated in our knowledge of total curriculum development.

If we examine one area, that of the Human Processes, we have three sets: communication, cognitive-affective functioning, and socialization (see Figure 2). Currently, one of our management goals is to see that within this major area of instruction we can begin to promote a unity within one such major set of curriculum ideas. That is how we can increase the area of intersection so that the processes we use in real life, in an interrelated way, become an integrated part of our education. Gradually, as we note within each learning sequence the specifics of the various areas, we can begin to note the consistencies within our approaches. The uniqueness of each area remains intact, but those areas which foster both the harmony and disharmony of life through their generic principles can also be examined. Figure 3 shows how one section can begin to take on the quality of unity.

However, while it is possible to use the model to examine an individual set, it is much more appropriate to examine the various three-dimensional combinations which can be developed for specific curriculum outcomes. For instance, in developing (composing) a set of experiences, how do we attend to the following combination: Expressive Perceptions of Reality, Peer Subgroup Values, and Cognitive-Affective Development? Cer-
ertainly, there are specific outcomes to be listed in each area, but it is the degree of mix we can perceive and achieve with which we are most concerned. We want to help students grow in all of these areas, and it is by designing both outcomes and goals as well as the experiences and perceptions that will allow us to begin to achieve unity. This is not to say all things planned can be achieved, but we must begin to develop and plan for more unity of perception.

Therefore, instead of viewing specific sectors in isolation as represented in Figure 2, we must begin to examine situations in light of the increasing unity factors in Figure 3. The three-dimensional model (Figure 1) provides a way for us to note the goals in interlock for any of nine major categories. This knowledge of interlock will then allow us to begin to design curricula which will allow both the specific and the interlocked goals to be developed both in isolated instances and in continuous and contiguous circumstances.

There is little doubt that many management factors and problems have been overlooked or unclearly specified. However, effective management will be the most unitized composite of the three areas of curriculum. The model described in Figure 1 begins to show the interlocks which are available upon which to build curriculum.

For the Future

Currently, turmoil and disheartenment are making schools and their curricula dysfunctional and traumatic experiences for students and teachers. It has been proposed that a three-dimensional curriculum model be used to help regain control and to provide a frame of reference for managing/developing curriculum. As one looks at the model, it begins to indicate new, not additional, responsibilities for staff and curriculum planners; rather than content experts, or process experts, or human relations experts, we need to interweave these areas just as life is a series of interwoven fibers and strands. The model also suggests that no matter which side of the model we attend to, the other areas are also affected. If instruction consists of these three elements and we plan for only one, we leave about two-thirds of our goals just to happen. That is why we need a model which will facilitate total development.

One does not encounter reality, whether past or present, physical, social, or personal, without engaging in certain types of human processes. Each life encounter, whether active, passive, productive, or reflective, comes into play on the attitudes and values one has, his referent groups, and his total society. Until we begin to organize and plan curriculum with theoretical designs which show the interactive nature of curriculum and life, management will be an impossible task because certain factors will be overlooked or miscalculated.

During the next 25 years, we must begin to give theoretical/practical consideration to preparing the human beings after us to be perceptive of reality and its expression, of the personal/group/societal value questions with which one must cope, and of those processes and feelings which make being human worthwhile. We currently have few designs with which to accomplish this.